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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,583	07/31/2001	L. Jeffrey Kapner III	K35A0795	5991
35219 7590 06/08/2007 WESTERN DIGITAL TECHNOLOGIES, INC. ATTN: RENEE FRANKS 20511 LAKE FOREST DR. E-118H LAKE FOREST, CA 92630			EXAMINER CHOWDHURY, SUMAIYA A	
			ART UNIT 2623	PAPER NUMBER
			MAIL DATE 06/08/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/920,583	Applicant(s) KAPNER ET AL.	
	Examiner Sumaiya A. Chowdhury	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6-13,15,18-26,28 and 31-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-13,15,18-26,28 and 31-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, filed 5/17/07, with respect to claims 1,3,6-13,15,18-26,28 and 31-38, have been fully considered and are persuasive. The Office Action of 2/23/07 has been withdrawn.

(a) Applicant argues "LaRocca clearly does not...subscription matrix" on page 9, 2nd paragraph of the Remarks filed 5/17/07.

Examiner agrees and has therefore brought in Kikinis (US 2003/0009757) to teach this limitation.

(b) Applicant argues "Davis does not disclose...such a subscription matrix" on page 8, 2nd paragraph of the Remarks filed 5/17/07.

Examiner agrees and has therefore brought in Kikinis (US 2003/0009757) to teach this limitation.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 6, 8-13, 15, 18-19, and 21-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5822123) in view of LaRocca (6314572) and Kikinis (US 2003/0009757).

As for claim 1, Davis discloses a client terminal (Fig. 1) connectable to a video distribution system (col. 9, lines 11-20) and a display device (27 – Fig. 1), the video distribution system provides program guide information to create a program guide that includes program guide entries for subscribed channels and non-subscribed channels, the client terminal comprising:

a video distribution system interface (11 – Fig. 1) to receive the program guide information - col. 9, lines 8-20;

a display interface (23 or 26 – Fig. 1 and 27 – Fig. 1) to display the program guide on the display device - col. 11, lines 9-16, col. 9, lines 14-21;

a user interface (29 – Fig. 1) to receive user input - col. 12, lines 4-10; and

a terminal controller (16 – Fig. 1) responsive to a subscription control program for:

- a. in response to user input, selecting a program guide entry from the program guide (col. 20, lines 9-11, lines 25-34, lines 49-54);

However, Davis fails to disclose wherein

- b. upon selection of a program guide entry that is for a non-subscribed channel

- i. recommending at least one bundle of channels for subscription by the user based upon a subscription matrix for the user, the currently selected program guide entry for the non-subscribed channel displayed in the program guide, and available bundles of channels for subscription.
- ii. accepting user input to select a bundle of channels for subscription by the user; and
- iii. transmitting a subscription request for the selected bundle of channels to the video distribution system

In an analogous art, LaRocca discloses:

- b. upon selection of a program guide entry that is for a non-subscribed channel (col. 11, lines 25-30, lines 35-39, col. 10, lines 7-11)
 - i. recommending at least one bundle of channels for subscription by the user based upon a subscription matrix (col. 5, lines 29-41) for the user, the currently selected program guide entry for the non-subscribed channel displayed in the program guide (Upon current selection of a program guide entry for a non-subscribed channel, if it is determined that the user doesn't have a subscription to the selected subscription package or to an underlying service to enable a dependent or contingent service, a subscription screen is displayed describing the subscription offering and allows the user to sign up for the service. By doing so, the system is recommending a bundle of channels to the user. – col. 11, lines 25-50), and available bundles of channels for subscription (The subsystems 142 – Fig. 1 and 144 – Fig. 1 maintain databases of specific customer subscription information (subscription matrix) which is used to facilitate dependent subscriptions - col. 5, lines 29-41. Therefore, if the user

selects M subscriptions out of N services, the subscriber is provided the remaining services for free or at a discounted rate. It tracks the subscriptions of each subscriber and when a certain number is obtained in a category, the remaining services are available for free or for a discounted fee – col. 13, lines 16-28. e.g. User selects children's programming (selected program guide entry). The remaining children's programming services (available bundle of channels for subscription) are made available for free or for a discounted fee. The remaining children's programming services are determined from the specific customer subscription information (subscription matrix). When the subscriber subscribes to dependent subscriptions, the system allows the subscriptions to be bundled into fixed packages containing a plurality of services for the advantage of providing programs to the user for free or at a discounted rate - col. 13, lines 16-27);

ii. accepting user input to select a bundle of channels for subscription by the user (col. 11, lines 35-67, col. 12, lines 58-60, col. 13, lines 30-35); and

iii. transmitting a subscription request for the selected bundle of channels to the video distribution system (The subscription information screen allows user to sign up for service. The subscription information screen may inform the user that service requested is a dependent service, implying that user may sign up for a bundle of channels - col. 11, lines 35-67)

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis' invention to include the above mentioned

limitation, as taught by LaRocca, for the advantage of providing programs for free or at a discounted rate (col. 13, lines 16-24).

However, LaRocca and Davis fail to teach:

The subscription matrix is stored locally at the client terminal;

Wherein the subscription matrix includes channel subscribed to by the client terminal and available channels not subscribed to by the client terminal;

In an analogous art, Kikinis (US 2003/0009757) teaches:

The subscription matrix is stored locally at the client terminal and wherein the subscription matrix includes channel subscribed to by the client terminal and available channels not subscribed to by the client terminal (The user STB stores both the subscribed and unsubscribed channels)– [0019]-[0021], [0016];

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis and LaRocca's invention to include the above mentioned limitation, as taught by Kikinis, for the advantage of differentiating subscribed channel from unsubscribed channels in an EPG.

As for claims 3 and 15, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose wherein the video distribution system after receipt of the subscription request for the selected bundle of channels verifies a user's credit with a billing system to determine whether the user's credit is approved or disapproved for the selected bundle of

channels, the terminal controller or video distribution controller responsive to the subscription control program/further comprising code segments or steps for :

In particular, LaRocca discloses:

- a. receiving the approval or disapproval from the video distribution system (col. 12, lines 1-14); and
- b. if the user's credit is approved,
 - i. updating the subscription matrix (subscription database) to reflect that the client terminal is now subscribed to the selected bundle of channels (col. 12, lines 9-22); and
 - ii. authorizing access to the selected bundle of channels (col. 12, lines 21-25).

As for claims 6 and 18, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose wherein the selected bundle of channels is the most cost effective bundle of channels having a subscription cost that is less than the subscription cost of individually subscribing to the non-subscribed channel. In particular, LaRocca discloses wherein the subscriber subscribes to dependent subscriptions, the system allows the subscriptions to be bundled into fixed packages wherein several of the services is provided for free or at a discounted rate - col. 13, lines 16-27.

As for claims 8 and 21, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose wherein the client terminal is coupled to the video distribution system by a link that provides a persistent connection. In particular, Davis discloses that the client terminal receives data from the video distribution system via cablecast which is a persistent connection - cablecast, cable line – col. 9, lines 12-16, lines 20-22.

As for claims 9 and 22, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose the claimed limitations. In particular, LaRocca discloses wherein the menu (500 – Fig. 5) includes a category for each listed channel (502 – Fig. 5) – (This is done to group channels into their respective categories to provide the user the ease of finding a desired channel. col. 10, lines 29-45).

As for claims 10 and 23, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose wherein a channel includes a computer network channel. In particular, Davis discloses wherein 64 – Fig. 6 corresponds to interactive services which require a computer network channel. e.g. home shopping, banking, or telephone use - col. 17, lines 39-44.

As for claims 11 and 24, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose the client terminal comprising selecting only a program of the program guide entry of a non-subscribed channel for subscription in selecting the bundle of channels. In particular, LaRocca discloses wherein the client terminal selects a program of the

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program guide entry of a non-subscribed channel for subscription in selecting the bundle of channels. e.g. Referring to col. 12 lines 38-65, a user is presented with a sports bundle. The user may only be interested in men's professional basketball and is provided the option of selecting that particular channel – col. 12, lines 58-67.

As for claims 12 and 25, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose wherein the client terminal wherein the video distribution system is a cable head end. In particular, LaRocca discloses wherein the video distribution system is a cable head end – (This enables a secure bi-directional flow of data between the client terminal and cable headend. col. 4, lines 63-67).

Claim 13 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. Claim 13 additionally calls for the following which Davis discloses:

a computer program (application software) embodied in a computer readable storage medium (SRAM, EEPROM 20 – Fig. 1) for use in a client terminal (Fig. 1) connectable to a video distribution system (col. 9, lines 11-20) and a display device (27 – Fig. 1), the video distribution system provides program guide information to create a program guide that includes program guide entries for subscribed channels and non-subscribed channels, the computer program comprising code segments (software programming) to perform the method discussed above in claim 1. (The video distribution system provides program schedule information for **all (subscribed and non-**

subscribed) television programs available in the operator's geographical market – col. 9, lines 8-20. The EEPROM is connected to the video distribution system through components 12-16 – Fig. 1, and is connected to the display device through 16, 23, 25A – Fig. 1. col. 9, lines 58-64).

As for claim 19, Davis, LaRocca, and Kikinis (US 2003/0009757) disclose the claimed limitations.

In particular, LaRocca teaches:

- a. displaying a promotion display for a bundle of channels – col. 11, lines 25-50
- b. in response to user input, selecting the promotion display – col. 11, lines 33-50
- c. transmitting a subscription request for the bundle of channels to the video distribution system – (col. 11, lines 35-67).

4. Claims 7, 20, 26, and 28, 31-38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of LaRocca, Kikinis (US 2003/0009757), and Kikinis (US 2003/0023980).

As for claims 7, 20, and 33, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose wherein client terminal further comprising the step/preference engine/code segments, wherein the preference engine/code segments selects program guide entries for non-subscribed channels for display in the program

guide based upon a user's viewing patterns. In particular, Kikinis (US 2003/0023980) discloses wherein the client terminal recommends packages including programming based on customer's use-tracking program (step/preference engine/ code segments) which tracks customer's attempt to access unavailable programming (non-subscribed channels) – (paragraph [0031] - [0033] in published application and paragraph 3 & 4 (Then in step 402 attempts by the customer...) on page 3 in provisional application) [Doing so, provides recommendations of channels which the user is likely to select based on user's past selections.]

Claim 26 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. Claim 26 additionally calls for the following:

Receiving user input at the client terminal (see Davis col. 20, lines 9-11, lines 25-34, lines 49-54)

Performing processing at the client terminal to recommend at least one bundle of channels (See paragraph 4 of page 1 of the provisional application by Kikinis (US 2003/0023980). "What is clearly needed...based on customer responses, out of the multitude of available packages could then generate suggestions for programming packages designed to appeal to him,..., while avoiding for the customer the inconvenience of having to call into a call center". Referring to page 2, 2nd paragraph, "... the system would offer him a comparison of a small selection...of suitable options". Referring to page 2, 5th paragraph, "In some cases...**and therefore an inquiry into the main database is done**". From this, it is clear that the processing to generate

recommendations is done mainly at the client terminal, unless in certain circumstances when the user moves to another town).

As for claim 28, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose wherein the video distribution system after receipt of the subscription request for the selected bundle of channels verifies a user's credit with a billing system to determine whether the user's credit is approved or disapproved for the selected bundle of channels, the terminal controller or video distribution controller responsive to the subscription control program/further comprising code segments or steps for :

In particular, LaRocca discloses:

- a. receiving the approval or disapproval from the video distribution system (col. 12, lines 1-14); and
- b. if the user's credit is approved,
 - i. updating the subscription matrix (subscription database) to reflect that the client terminal is now subscribed to the selected bundle of channels (col. 12, lines 9-22); and
 - ii. authorizing access to the selected bundle of channels (col. 12, lines 21-25).

As for claim 31, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US

2003/0023980) disclose wherein the selected bundle of channels is the most cost effective bundle of channels having a subscription cost that is less than the subscription cost of individually subscribing to the non-subscribed channel. In particular, LaRocca discloses wherein the subscriber subscribes to dependent subscriptions, the system allows the subscriptions to be bundled into fixed packages wherein several of the services is provided for free or at a discounted rate - col. 13, lines 16-27.

As for claims 32. Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose the claimed limitations. In particular, LaRocca teaches:

- a. displaying a promotion for a bundle of channels (Fig. 4; col. 9, lines 30-55).
 - b. in response to user input, selecting the promotion display (col. 9, lines 40-55);
- and
- c. transmitting a subscription request for the bundle of channels to the video distribution system (col. 9, lines 55-65).

As for claim 34, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose wherein the client terminal is coupled to the video distribution system by a link that provides a persistent connection. In particular, Davis discloses that the client terminal receives data from the video distribution system via cablecast which is a persistent connection - cablecast, cable line – col. 9, lines 12-16, lines 20-22.

As for claim 35, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose the claimed limitations. In particular, LaRocca discloses wherein the menu (500 – Fig. 5) includes a category for each listed channel (502 – Fig. 5) – (This is done to group channels into their respective categories to provide the user the ease of finding a desired channel. col. 10, lines 29-45).

As for claim 36, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose wherein a channel includes a computer network channel. In particular, Davis discloses wherein 64 – Fig. 6 corresponds to interactive services which require a computer network channel. e.g. home shopping, banking, or telephone use - col. 17, lines 39-44.

As for claim 37, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose the client terminal comprising selecting only a program of the program guide entry of a non-subscribed channel for subscription in selecting the bundle of channels. In particular, LaRocca discloses wherein the client terminal selects a program of the program guide entry of a non-subscribed channel for subscription in selecting the bundle of channels. e.g. Referring to col. 12 lines 38-65, a user is presented with a sports bundle. The user may only be interested in men's professional basketball and is provided the option of selecting that particular channel – col. 12, lines 58-67.

As for claim 38, Davis, LaRocca, Kikinis (US 2003/0009757) and Kikinis (US 2003/0023980) disclose wherein the video distribution system is a cable head end. In particular, LaRocca discloses wherein the video distribution system is a cable head end – (This enables a secure bi-directional flow of data between the client terminal and cable headend. col. 4, lines 63-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumaiya A. Chowdhury whose telephone number is (571) 272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAC



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